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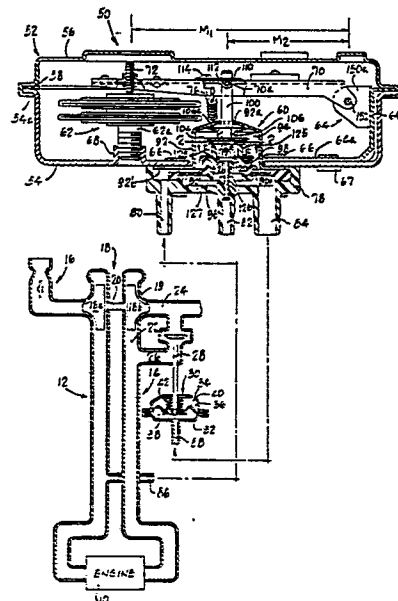
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54 **Turbocharger control system.**

57 An altitude compensating turbocharger control system including a boost regulator (54) for modifying a wastegate signal as a function of turbocharger output pressure and ambient pressure. The regulator (54) includes a housing (42) that mounts a valve assembly (60) including a controller (98) for controlling the communication of an input chamber (94) with an output chamber (96) and the communication of the output chamber (96) with an ambient pressure port (82). The housing (52) also mounts an aneroid capsule (62) and a force transmitting arm (70) for transferring and amplifying ambient pressure related forces generated by the aneroid capsule (62) to the controller (98). The pressure in the output chamber (96) is a function of both input pressure and the atmospheric pressure sensed by the aneroid capsule (62) and is communicated via a port (84) to a wastegate actuator (30) which opens and closes a wastegate valve (26). Changes in atmospheric pressure sensed by the aneroid capsule (62) causes the controller (98) to modify the pressure in the output chamber (96) to compensate for a change in biasing force on a wastegate actuator diaphragm (34) that occurs as a result of changes in atmospheric pressure.



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DOCUMENTS CONSIDERED TO BE RELEVANT				
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.4)	
A	US-A-2 900 890 (FISCHER) * Whole document *	1-15	F 02 B 37/12	
A	CA-A- 481 835 (IFIELD) * Column 1, line 34 - column 3, line 30; figure *	1-4,14,15		
A	FR-A-1 277 169 (THE GARRETT CORP.) * Page 2 - page 4, column 2, line 13; figures 1,2 *	1-15		
A	US-A-2 376 199 (SCHOULTS) * Page 1, column 1, line 38 - page 4, column 1; figures 1,2 *	1-4,14,15		
A	US-A-2 608 200 (STOCKMAN) * Column 1, line 41 - column 3, line 54; figure *	1-4,14,15		
A	US-A-3 611 711 (MUELLER) * Column 2, line 43 - column 7, line 52; figures 1,2 *	1-4,14,15		TECHNICAL FIELDS SEARCHED (Int. Cl.4)
A	DE-A-3 107 935 (PIERBURG)			F 02 B
A	GB-A-2 077 854 (BMW)			F 02 D
A	DE-A-2 721 865 (BOSCH)			G 05 D
A	EP-A-0 067 445 (HITACHI)			
A	DE-C- 846 063 (LUCAS)			
The present search report has been drawn up for all claims				
Place of search THE HAGUE		Date of completion of the search 14-12-1987	Examiner ERNST J.L.	
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone  Y : particularly relevant if combined with another document of the same category  A : technological background  O : non-written disclosure  P : intermediate document</p> <p>T : theory or principle underlying the invention  E : earlier patent document, but published on, or after the filing date  D : document cited in the application  L : document cited for other reasons</p> <p>&amp; : member of the same patent family, corresponding document</p>				